
Customer Support Services Overview

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Customer Support Group Services

- Helpdesk services
 - Request routing & escalation
 - Systems, Software & Core Services
 - Account management & certificates
 - Application development & monitoring
- Direct interaction with other services
 - Windows desktop support, break/fix hardware maintenance, hardware maintenance & software licenses

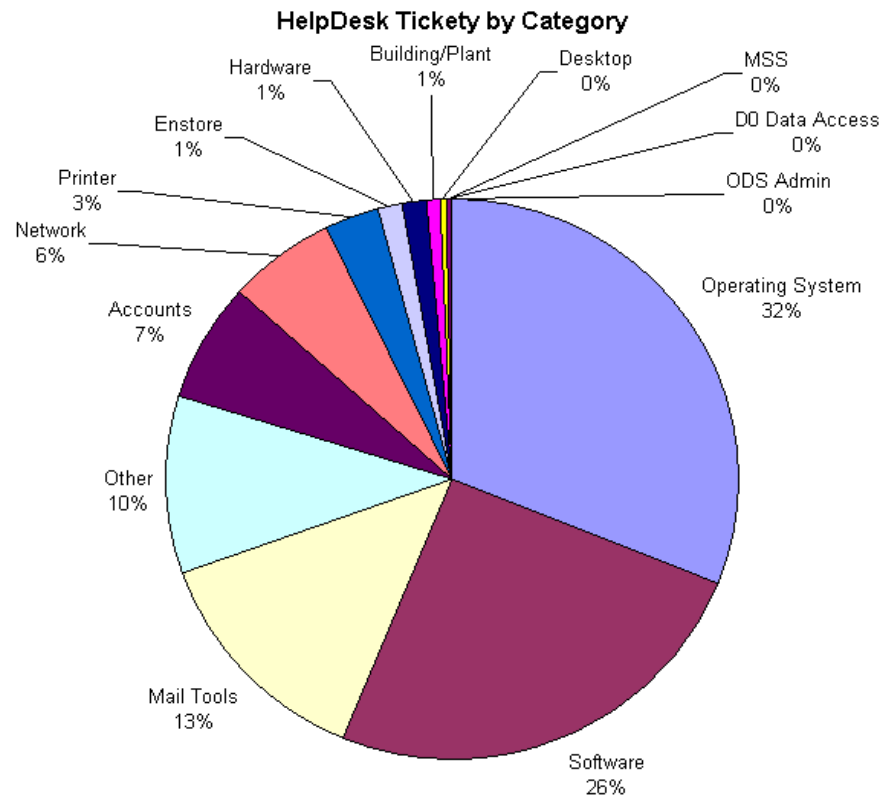
FOR MORE INFO...

[Core Support Services Department](#)

Routing Requests in Remedy

- Over 500 systems or services supported & represented in Remedy ARS 6
 - ~835 problem tickets each month
 - Over 300 account requests each month
 - ~175 hw repairs each month
 - ~ 100 fully automated tickets each month

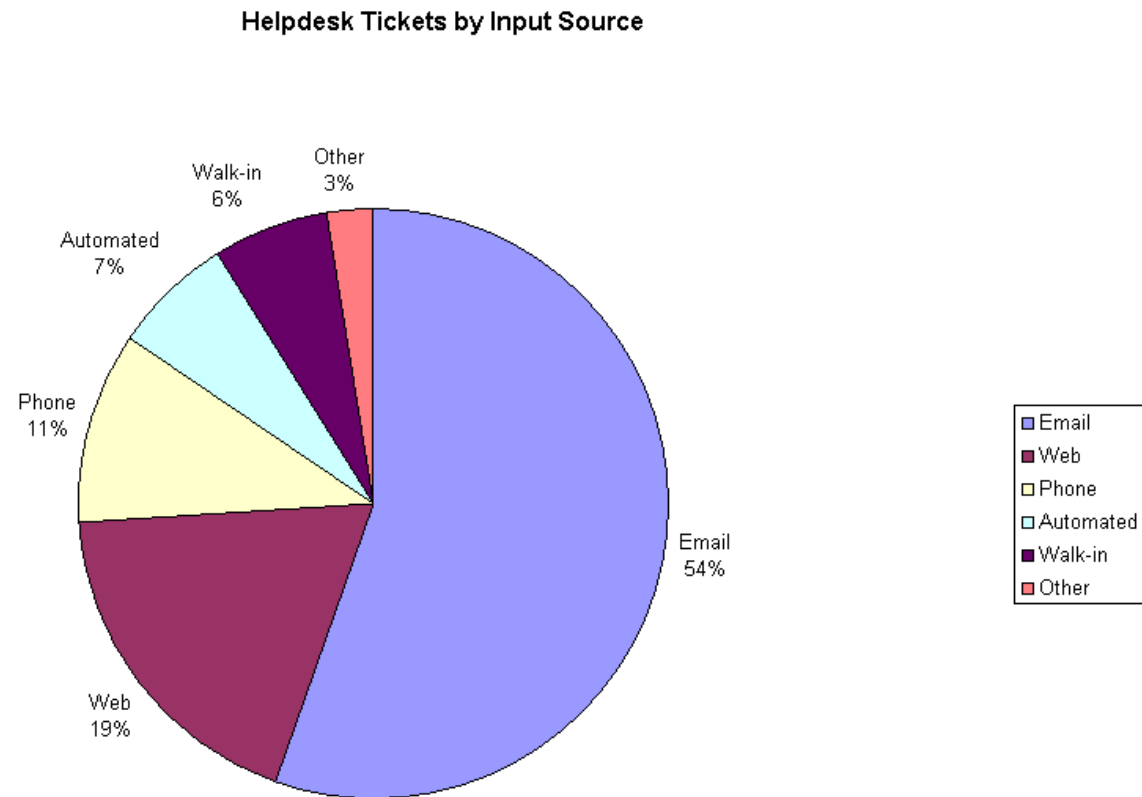
Helpdesk Request by Category



Additional [Helpdesk Metrics](#) from March 2004

October 15, 2004

Helpdesk Request by Input Source



Additional [Helpdesk Metrics](#) from March 2004

October 15, 2004

Communications

- Creating requests in the Remedy system
 - Manually, API, formatted email
 - Ticket creation can evoke work flow
 - Notifying support groups
 - Email, Paging, Cell Phone, IVR
 - Dependant on work flow and priority
 - Notification of off-site contacts. For example, Remedy work flow notifies Johns Hopkins for SDSS. MINOS@Soudan Mine. D0 and CDF SAM Shifters.
 - Don't necessarily distinguish between users and support groups that may be on-site and off-site.
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Automation Project

- A project was completed in 2004 that provided an automated notification system to alert system support staff of system problems.
- This project is a component of a larger Data Center Automation project whose goal is to enable “lights out” operation of our Data Center.

FOR MORE INFO...

[Automation Project Report](#) from Hepix 10/03 (pdf)

Automation & Monitoring Tools

- Tools for tracking requests, workflow & escalation
 - ❑ [Remedy](#) ARS 6
 - ❑ [TelAlert](#) 5.4
- Monitoring Tools
 - ❑ [NGOP](#)
 - ❑ [HP Open View](#)
 - ❑ Tools that can send formatted email or use an API

FOR MORE INFO...

[Ngop - CHEP 2001 report](#)

Automated Monitoring

- NGOP monitoring
 - ~ 45k monitored elements (Examples of Monitored Element: files system, tape drive, system daemon, and memory utilization.)
 - ~ 4k systems, ~ 200 clusters
- HP OpenView monitoring
 - small number of key site network devices
- NetBotx monitoring devices to monitor temperature and electric power in remote computer rooms.

Monitoring off-hours (high availability)

- Over 100 systems and services
 - email, web servers, databases, building infrastructure, networks, etc.
 - Customers are primarily Fermilab, but also experiments with collaborators around the world
 - Notification of experts via Remedy workflow
 - < 10 calls per month
 - Notification through the off-hours answering service.
 - ~ 10 calls per month
 - answering service will start to use Remedy escalation

DOE Certificates

- Approval process for certificates for CMS, CDF, D0 and SDSS.
- Building a network of contacts
- Processes develop & evolve as we learn
- Volume is low and growing
 - ~ 15-20 requests/month